Application/Control Number: 10/565,657 Page 2

Art Unit: 1625

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- 2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Greenfield on August 23, 2010.
- 3. The application has been amended as follows:

A. Claim 57 has been amended to read as follows:

57. (Rejoined, Currently Amended) A method of treating diseases or disorders associated with uncontrolled, abnormal, and/or unwanted cellular activities, wherein the disease is an ALK-positive lymphoma, B-cell lymphoma, neuroblastoma, or inflammatory myofibroblastic tumor, the method comprising administering, to a mammal in need thereof, a therapeutically effective amount of a compound according to formula I:

$$(R^1)_{1-5}$$
 A X^3 X^2

or a pharmaceutically acceptable salt or a stereoisomer, thereof, wherein,

A is a five- to ten-membered ring containing up to three heteroatoms;

 R^1 is selected from -H, halo, trihalomethyl, -CN, -NO₂, -OR⁴, -N(R⁴)R⁴, -S(O)₀₋₂R⁴, -SO₂N(R⁴)R⁴, -CO₂R⁴, -C(=O)N(R⁴)R⁴, -C(=O)R⁴, -C(=NR⁵)N(R⁴)R⁴,

Application/Control Number: 10/565,657 Page 3

Art Unit: 1625

-C(=NR 5)R 4 , -N(R 4)SO $_2$ R 4 , -N(R 4)C(O)R 4 , alkoxy, C $_{1-6}$ alkyl, aryl, aryl C $_{1-6}$ alkyl, heterocyclyl, and heterocyclyl C $_{1-6}$ alkyl;

two adjacent of R¹, together with the annular atoms to which they are attached, can form a five- to six-membered ring containing up to two heteroatoms and optionally substituted with up to four of R¹⁰;

R² and R³, together with the annular atoms to which they are attached, form a five- to six-membered ring containing up to two heteroatoms and optionally substituted with up to five of R⁶;

each R^4 is selected from -H; C_{1-6} alkyl optionally substituted with 1, 2, or 3 halogen; C_{1-6} alkyl optionally substituted with alkoxy; C_{1-6} alkyl substituted with amino where the amino is optionally substituted with one or groups selected from methyl, ethyl, - $CH_2CH_2OCH_3$, - $CH_2CH_2N(CH_3)_2$, - $CH_2CH_2CH_2N(CH_3)_2$, and N-methyl-pyrrolidin3-yl; aryl; aryl C_{1-6} alkyl; heterocyclyl; and heterocyclyl C_{1-6} alkyl where the heterocyclyl is optionally substituted with alkyl, acyl, NH_2 , alkylamino, dialkylamino, heterocyclyl, cyclohexyl, - CH_2OCH_3 , - $CH_2C(O)NHCH(CH_3)_2$, or - CH_2OCH_3 ;

two of R⁴, when taken together with a common nitrogen to which they are attached, form an five- to seven-membered heterocyclyl, said optionally substituted five- to seven-membered heterocyclyl optionally containing at least one additional heteroatom selected from N, O, S, and P;

each R^5 is selected from -H, -CN, -NO₂, -OR⁴, -S(O)₀₋₂R⁴, -CO₂R⁴, C₁₋₆ alkyl, C₂₋₆ alkenyl, and C₂₋₆ alkynyl;

Y is =N- or =C(H);

 X^1 and X^2 are each independently either =N- or =C(\mathbb{R}^9)-;

 X^3 is $-N(R^7)$ -;

R⁷ is hydrogen;

Application/Control Number: 10/565,657

Art Unit: 1625

each of R^6 and R^{10} is independently selected from -H, halo, trihalomethyl, -CN, -NO₂, -OR⁴, -N(R⁴)R⁴, -S(O)₀₋₂R⁴, -SO₂N(R⁴)R⁴, -CO₂R⁴, -C(=O)N(R⁴)R⁴, -C(=NR⁵)N(R⁴)R⁴, -C(=NR⁵)R⁴, -N(R⁴)SO₂R⁴, -N(R⁴)C(O)R⁴, -C(=O)R⁴, optionally substituted alkoxy, C_{1-6} alkyl, aryl, aryl C_{1-6} alkyl, heterocyclyl, and heterocyclyl C_{1-6} alkyl;

Page 4

two adjacent of R^6 , together with the annular atoms to which they are attached, can form a five- to seven-membered ring containing up to two heteroatoms; and each R^9 is independently selected from –H; halo; trihalomethyl; -CN; -NO₂; -OR⁴; -N(R^4) R^4 ; -S(O)₀₋₂ R^4 ; -SO₂N(R^4) R^4 ; -CO₂ R^4 ; -C(=O)N(R^4) R^4 ; -C(=NR⁵)N(R^4)N(R^4)R⁴; -C(=NR⁵)R⁴; -N(R^4)SO₂ R^4 ; -N(R^4)C(O)R⁴; -C(=O)R⁴; alkoxy; C₁₋₆ alkyl optionally substituted with one group selected from alkoxy, benzylamino, and 2-oxopyrrolidinyl; aryl C₁₋₆ alkyl substituted on the aryl with 1 or 2 groups selected from alkyl and alkoxy; heterocyclyl optionally substituted with -C(O)Ot-Bu; and heterocyclyl C₁₋₆ alkyl; provided when R^9 is aryl, heteroaryl, -C(H)=C(H)R or -C(H)=NR, where R is an optionally substituted alkyl, cycloalkyl, heteroalicyclic, aryl, or heteroaryl, then Y is not =C(H)-.

B. Claims 54-56 and 58 have been cancelled.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

- 4. Based upon the response filed June 15, 2010, the improper Markush objection is withdrawn.
- 5. Based upon the response filed June 15, 2010, the rejections under 35 U.S.C.
 112, 2nd paragraph and 35 U.S.C. 102(b) based upon Tikk et al. are withdrawn.
- 6. Non-elected claims 57 and 58 are rejoined with the invention of Group I. Claim 57 has been amended to incorporate the limitations of claim 58.

Application/Control Number: 10/565,657 Page 5

Art Unit: 1625

7. The changes made by Examiner's Amendment are editorial in nature. The

changes are not made to avoid any possible rejection based upon prior art.

8. Applicants preserve the right to file divisional applications drawn to the non-

elected subject matter of claims 54-56.

9. The publication date for Reference 1 has been added. The Information

Disclosure Statement filed December 15, 2009 has been updated.

10. Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

11. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Zinna N. Davis whose telephone number is 571-272-

0682.

12. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Zinna Northington Davis/ Primary Examiner, Group 1600-AU 1625

Znd 08.24.2010 Application/Control Number: 10/565,657

Page 6

Art Unit: 1625